

Alexa Fluor® 488 anti-STAT3 Phospho (Tyr705) Antibody

Catalog# / Size	651005 / 25 tests 651006 / 100 tests
Clone	13A3-1
Regulatory Status	RUO
Other Names	Signal transducer and activator of transcription 3, Acute-phase response factor, APRF, HIES
Isotype	Mouse IgG1, κ
Description	Tyrosine phosphorylation of STAT3 at Tyr705 occurs in response to LIF, IL-6, leptin, OSM, EGF, PDGF, and HGF. It plays a key role in cell growth and apoptosis through mediating expression of a variety of genes in response to the stimuli.

Product Details

Verified Reactivity	Human, Mouse
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	KLH conjugated modified synthetic peptide
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 488 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	ICFC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by intracellular flow cytometry using our True-Phos™ Perm Buffer in Whole Blood Protocol . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood. * Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm. Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
Excitation Laser	Blue Laser (488 nm)
Application Notes	The STAT3 Phospho (Tyr705) antibody recognizes the regulatory tyrosine phosphorylation of human STAT3 protein and has been shown to be useful for Western blotting.
Product Citations	1. Martínez-Fábregas J, <i>et al.</i> 2020. Cell Rep. 33:108545. PubMed
RRID	AB_2572083 (BioLegend Cat. No. 651005) AB_2572084 (BioLegend Cat. No. 651006)

Antigen Details

Structure	STAT3 is a 770 amino acid protein of 88 kD. It consists of a DNA binding domain, a SH2 domain,
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a regulatory tyrosine responsible for binding of SH2 domain, and a C-terminal transactivation domain.

Distribution	Ubiquitous.
Function	STAT3 is tyrosine phosphorylated by receptor kinases in response to a variety of cytokines and growth factors. It forms homo- or heterodimer with STAT1 when tyrosine is phosphorylated, and then translocates to nucleus, acting as a transcription regulator. It is also essential for the differentiation of TH17 cells, which is involved in autoimmune diseases.
Cell Sources	Cytoplasm. Translocate to nucleus in response to tyrosine phosphorylation.
Cell Type	Embryonic Stem Cells, Neural Stem Cells
Biology Area	Cell Biology, Neuroscience, Neuroscience Cell Markers, Signal Transduction, Stem Cells, Synaptic Biology, Transcription Factors
Molecular Family	Phospho-Proteins
Antigen References	<ol style="list-style-type: none">1. Akira S, <i>et al.</i> 1994. <i>Cell</i> 77:63.2. Zhang X, <i>et al.</i> 1995. <i>Science</i> 267:1990.3. Sanchez-Margalet V, <i>et al.</i> 2001. <i>Cell. Immunol.</i> 211:30.4. Simon A, <i>et al.</i> 2000. <i>Science</i> 290:144.5. Hoey T, <i>et al.</i> 1999. <i>Adv. Immunol.</i> 71:145.
Regulation	The small GTPase Rac1 binds and regulates activity of STAT3.
Gene ID	6774

Related Protocols

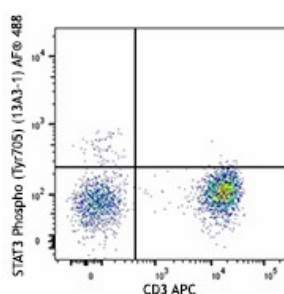
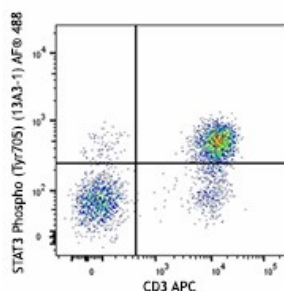
[Intracellular Staining With True-Phos™ Perm Buffer in Cell Suspensions Protocol](#)

[Intracellular Staining With True-Phos™ Perm Buffer in Whole Blood](#)

Other Formats

Purified anti-STAT3 Phospho (Tyr705), PE anti-STAT3 Phospho (Tyr705), Alexa Fluor® 488 anti-STAT3 Phospho (Tyr705), Brilliant Violet 421™ anti-STAT3 Phospho (Tyr705), Alexa Fluor® 647 anti-STAT3 Phospho (Tyr705), Direct-Blot™ HRP anti-STAT3 Phospho (Tyr705), PE/Cyanine5 anti-STAT3 Phospho (Tyr705), FITC anti-STAT3 Phospho (Tyr705), PerCP/Cyanine5.5 anti-STAT3 Phospho (Tyr705)

Product Data



Human whole blood was stimulated with (top) or without (bottom) IL-6 for 15 minutes, then treated with RBC Lysis/Fixation Solution and permeabilized with True-Phos™ Perm Buffer, then stained with CD3 APC and STAT3 pY705 (clone 13A3-1) Alexa Fluor® 488.

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